Work package 2- Historical and recent attitude of stakeholders

Case 20:
London CUTE hydrogen fuelling station

M. Hodson

May, 2006

*C*ultural Influences on *R*enewable *E*nergy *A*cceptance and *T*ools for the development of communication strategies to promot*E* ACCEPTANCE among key actor groups

Project co-funded by the European Commission within the Sixth Framework Programme (2002-2006)

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Contact

The SURF Centre, University of Salford
M. Hodson
113-115 Portland Street,
Manchester M1 6DW
UNITED KINGDOM

Tel: +44 (0)161 295 4018.
Fax: +44 (0)161 295 5880.
http://www.surf.salford.ac.uk

1. Introduction

This paper addresses a relatively recent controversy in the social acceptance of a hydrogen fuel cell bus demonstration project in London. The first part of the paper, briefly, outlines 'hydrogen economy' and related 'public acceptability' initiatives in the UK context, whilst the second part analyses the London case in relation to the case study analytic framework developed by SURF (2006), before the final section offers a summary of the lessons to be learned from this particular case.

2. Country Overview: The hydrogen economy in the UK Context

The UK Energy White Paper (DTI, 2003), *Our Energy Future*, provides an entry point to thinking about the hydrogen economy in the UK policy context. The White Paper offered an acknowledgement of three issues in particular - *environmental*, in particular climate change; *declining indigenous energy supplies* and related security of supply; and ageing *energy infrastructures* - facing UK energy policy and posited a number of goals and aims in addressing these issues. These included:

1. Cutting UK carbon dioxide emissions by 60 per cent 'by about' 2050 with 'real progress' by 2020.
2. Maintaining the reliability of energy supplies.
3. The promotion of competitive markets both domestically and internationally in addressing 'sustainable' economic growth and improving productivity.
4. Ensuring that every home is adequately and affordably heated.

A series of policy measures were set out in the White Paper which outlined a role for hydrogen and fuel cells as part of a future 'fuel mix' with an emphasis on the contribution of energy efficiency and renewables. The White Paper outlined a role for hydrogen and fuel cells in which:

> *'Hydrogen looks likely to play a key role in future low-carbon energy systems' and in particular 'seems likely to play a key role in future transport technologies'.*

Support for this in the White Paper was detailed around a number of measures including, for example:

- The exemption of hydrogen from road fuel duty for a period to encourage its early development and take-up.
- Support for fuel cell research.
- Part-funding of the trial of fuel cell buses and fuel cell cars.
- Also working with London and other local and regional organisations on a wider network of demonstration trials (DTI, 2003, p.71).

Acknowledging the lack of strategic attention to hydrogen in the White Paper, and taking account of existing (if often fragmented) UK capabilities in relation to the hydrogen economy, the UK Department of Trade and Industry (DTI) subsequently commissioned a strategic framework, for the period to 2030, for hydrogen energy in the UK addressing the question:

> *How should the UK engage with hydrogen economy activities for maximum benefit? (E4Tech et al., 2004, p.8).*

A series of issues and recommendations emerged from the strategic framework report. These included the view that 'post 2020 energy policy will follow the goals of safe, secure, affordable supply with minimal CO_2' and that 'hydrogen has the potential to make a significant contribution to the UK's priorities in transport, much less in electricity and heat'. In addressing this a 'total of 33 measures are needed to develop the six main hydrogen options for transport by 2030' and 'five main areas of support are needed to develop hydrogen options for the UK' (E4Tech et al., 2005, p.15), including support for R&D, support for demonstration, support for commercialisation, the coordination of UK hydrogen activities and the creation of demand conditions for hydrogen. The response of the UK government included the announcement of a funding package of around £15 million over four years for UK demonstrations of hydrogen and fuel cell technologies (DTI, 2004).

In the UK context there has been a variety of hydrogen related demonstration and pre-demonstration activity at local and regional levels throughout the UK, in particular in areas such as the West Midlands, Scotland, Teesside, Wales and London. Despite this increasing hydrogen activity throughout the UK there have been limited studies of hydrogen and public perceptions. In one of very few examples of this type of work, Tanya O'Garra and colleagues (2005) undertook research to analyse awareness and acceptability of hydrogen vehicles in London. A survey of over 400 London residents found that less than half of the respondents had heard of hydrogen as a fuel for transport and over a third supported the introduction of hydrogen vehicles. Prior awareness of hydrogen technologies was the main determinant of acceptance, and hydrogen awareness was related to age, gender, education and environmental knowledge. The study highlights that more needs to be done to raise awareness of hydrogen technologies in the UK. In addition, Rob Flynn and colleagues at the University of Salford are engaged in ongoing case study work with 'publics' in three regions of the UK in which hydrogen demonstrations are talking place or are scheduled to take place. The 'results' of this work are not, as yet, published.

3. Summary

The Clean Urban Transport for Europe (CUTE) initiative promotes fuel cell technology and involves public transport operators running single deck buses utilising this technology. The London demonstration involved the running of three hydrogen fuel-cell buses on a major bus route in London. Part of the CUTE initiative also involved the development by BP of a hydrogen refuelling station in Hornchurch, a town in the East London Borough of Havering. There were a number of objections to this development and as a result the planning application from BP was refused twice by the local authority Planning Committee and a Public Inquiry was held. Objections centred around health and safety concerns, highway safety issues and the fact that the development would be on Metropolitan 'Green Belt' land (i.e. it had certain controls against development). Planning permission was eventually granted by the Planning Inspectorate on the grounds of 'very special circumstances'. (For a chronology of the local events in the Hornchurch case, see Appendix A).

4. STEP ONE: Possible futures?

In terms of the First Step in the analytic framework, the 'vision', of the CUTE demonstration focused on 'testing', trailing' and 'learning-by-doing'. CUTE was underpinned by a 'public-private partnership' established at the end of 2001 and involved the demonstration, over two years, of 27 fuel cell powered buses in nine European cities (Amsterdam, Barcelona, Hamburg, London, Luxembourg, Madrid, Porto, Stockholm and Stuttgart).

The initiative's objectives were:

- 'To illustrate the large spectrum of different operating conditions [for fuel cell buses] to be found in Europe'.
- To assess the 'design, construction and operation of the necessary infrastructure for hydrogen production and refuelling stations'.
- There was a focus on the: 'collection of findings concerning safety, standardisation and operating behaviour of production for mobile and stationary use, and exchange of experiences including bus operation under differing conditions among the numerous participating companies for replication'.
- Further objectives included an: 'ecological, technical and economical analysis of the entire life cycle and comparison with conventional alternatives' and the 'quantification of the abatement of CO_2 at European level and contribution to commitments of Kyoto' as well as 'investigating the acceptance of these vehicles' (European Commission, undated: 2).

The initiative was part-funded by the European Commission, through its Directorate-General for Energy and Transport (DG TREN), to the tune of around € 21 million of a total of € 60 million. The remainder of the funding came from the partnership. The network built around the initiative was brought together by Daimler-Chrysler, included a central role for the energy provider BP and to varying degrees 'more than 40 organisations throughout Europe and the rest of the world are now involved in the project' (European Commission, undated: 4) .This included local networks of transport providers, energy suppliers, political supporters etc.

The London demonstration commenced in 2003 and involved a network including Daimler-Chrysler, BP, BOC, Transport for London, London Buses with First Group as the bus operator and the Energy Savings Trust. A key issue in the CUTE project was the relationship between the functioning of the fuel cell buses and associated infrastructure development.

Central in addressing fuel station development in London was the role of BP and its attempts in 'identifying the most efficient and effective pathways to the Hydrogen Economy. At this stage we don't believe there is one clear winner, so the best way forward is to work a number of these paths by testing various technologies and the customer acceptance of them in detailed ground-level demonstration projects' (BP H2 Promotional Document). This was part of BP's 'evolving strategy' of identifying 'pathways' and then modifying these pathways through feedback from local demonstration projects. In this sense, cities and regions such as London were seen as a site or a 'test-bed' for the 'real life' 'experimentation' of technology which would be 'dropped-in' as part of development from 'outside' rather than from 'within'.

A key aspect of 'vision' of the London demonstration was that there should be a publicly accessible hydrogen fuelling station forecourt, next to an existing petrol filling station in Hornchurch in the East London Borough of Havering. This was one of the five CUTE fuelling stations being developed across the cities involved in CUTE, and was designed to test out different 'pathways'. The fuelling station in London was the only one of the five stations which was publicly accessible.

5. STEP TWO: What were the various expectations of the case?

The development of the 'vision' involved multiple actors, with a variety of expectations, at the city-regional, national, European and international levels. The actors in the initial stages of the project were: the European Union, who co-financed the demonstration; the Energy Savings Trust who supported the project through a grant from its New Vehicle Technology Fund Programme (supported by the UK Department for Transport); Ken Livingstone, the Mayor of London, who backed the introduction of the hydrogen economy in London via

emerging planning policies and transport and air quality strategies; Daimler-Chrysler who developed and manufactured the buses and provided technical support during the trial; BOC who supplied the hydrogen technology to BP in London; BP who provided the hydrogen-refuelling facilities for the fuel cell buses; Transport for London who were responsible for achieving environmental targets and standards for London's bus fleet as required by the Mayor's Air Quality Strategy; London Buses Limited who are part of Transport for London and First Group who operate around one sixth of the London bus network.

The variety of expectations of these actors is captured in Table 5.1. What is also noted in this table is the ways in which these actors claimed to be speaking on behalf of certain notions of 'publics'.

Table 5.1 *Actors, expectations and 'publics'*

Actor	Expectation	Speaking for 'publics'
Daimler-Chrysler	To be involved in comprehensive fuel cell vehicle test program on a global scale and to learn from experimentation.	Not identified. Publics as consumers?
European Union	To reduce pollution caused by transport. Understanding of radical social and technical change.	General concern for promoting health of wider society.
BP	To be at the forefront of the move to a hydrogen economy and to 'test' how the technology 'really' works.	Talk about 'engaging' with 'the public' being part of the learning and trial process rather than pre-empting it.
BOC	To lead on a dynamic programme of initiatives in the evolving hydrogen energy economy.	Speaks for the benefits of 'publics' as 'customers'.
Energy Savings Trust	To support important technological advance in using renewable hydrogen to significantly lower harmful emissions and improve air quality.	General concern for promoting health of wider society.
Mayor of London	Introduced transport and air quality strategies. Supports the development of a hydrogen economy and fuel cell buses. Wants London to be a leading city for sustainable energy.	Improving 'quality of life' issues - air quality, fuel poverty, etc. But also the importance of being seen to be a leading city in attracting 'knowledge workers'
London Buses and First Group	Hydrogen powered buses to eventually become fully commercialised and replace diesel buses on London streets.	Benefits for 'publics' as public transport passengers i.e. quieter and more efficient public transport.

As the above table demonstrates, there were a variety of different expectations of the actors involved. Important here was the funding role of the European Commission's DG TREN, the role of networks of multinational capital and the implicit assumptions that hydrogen and fuel cell technologies could be 'dropped-in' to particular 'experimental', 'test-bed' contexts and lessons be learned from these contexts.

According to a source in the DG TREN: 'in the early 2000, the late 1990s, [Daimler Chrysler] had a very clear commitment on hydrogen and fuel cells and they thought that it would be a good idea to set up such a project to learn from real life experimentation'. The rationale un-

derpinning this 'real life experimentation', according to a keen observer of the development of this initiative, was radical social and technical change.

> *Replacing the heaviest infrastructure that moves our world, which is the energy infrastructure, and one of the most important industries, which is the automobile industry, from one way of doing things to something radically different it is unthinkable that one would move from one thing to the other.*

In terms of trying to address this way of understanding large-scale social and technical change the claim was made that multiple fuel cell buses and associated infrastructures needed, in a series of highly 'visible' cities, to be 'tested-out' under a 'variety of conditions'.

The notion of 'test-bed' is interesting in that it also appeals to the competition amongst 'world' and 'European' cities in attracting such demonstrations. In this respect, in the view of somebody closely involved with the CUTE project: '[Daimler Chrysler] invited all the cities to explain to them what they intended to do'. The idea being that 'we don't want a fleet of hydrogen buses for the sake of running them' rather we 'run them because it is a learning experiment and we learn through these experiments'.

A key difference between this approach and a 'bottom-up' approach is the role of the 'big boys' in that the CUTE initiative, according to an EU source, 'wouldn't have happened at all were it not for the likes of Daimler-Chrysler, and then, later on the energy companies driving it forwards and putting the whole proposal together…and then putting out to the cities for interest if you like'. This was because: 'You need the major manufacturers involved to bring this new technology forward or to drive this technology forward'.

CUTE addressed not only the functioning of the buses but also the development of a fuelling infrastructure for the buses. Steve Cook, Hydrogen Business Development Manager believes that the CUTE project is ideal for BP as it allows them to try out several different hydrogen supply methods both small and large scale. He explained,

> *CUTE is a great opportunity not just to get to grips with the technology but also to understand more about the costs involved and how we can engage the public in the debate about hydrogen (BP Magazine, 2004).*

6. STEP THREE: Understanding 'participatory' decision-making: negotiating expectations

Step three focuses on understanding the ways in which these expectations were negotiated, or formed the basis for interactions around the CUTE project debate in London over time. Time is key, as the 'vision' was an expression of the form, features, functions and benefits of the CUTE initiative in relation to local implementation, at an early stage of the initiative but continued to inform subsequent interactions and negotiations as the initiative encountered controversy. The controversy centred around the development of a hydrogen fuelling station in Hornchurch, driven by BP.

As previously outlined, the initial 'vision' of the move to a hydrogen economy and the CUTE initiative began in 2000 and involved communication and interactions between large multinational companies and institutions such as: the European Union, Daimler-Chrysler, BP, BOC, London Buses and First Group, Energy Savings Trust and the Mayor of London. Following the CUTE announcement, in March 2001, the initiative subsequently moved into a phase of regulation and site development of the hydrogen fuelling station. In July 2002, other actors became involved such as Bovis, the engineering company used by BP to undertake

construction work and Ozier, a planning consultant used by BP to process the planning application.

The planning application was submitted to the local authority in September 2002 and the participation of other actors, including councillors in the Planning Committee who considered the application, the Health and Safety Executive whose expertise was called upon to assess and advise the local authority on the risks arising from the presence of a hazardous substance to persons in the vicinity; the Environment Agency was called upon to assess and advise the local authority upon the risks arising to the environment from the presence of hazardous substances and London Fire Brigade, who offered advice about fire safety and carried out various emergency-planning activities. Up until this point the focus was on completing the administrative processes of the development and practical delivery and interactions were expressed through very formal methods in the format of letters and memos.

Local Hornchurch residents were notified by the council, of the planning application for a hydrogen refuelling station at an existing BP Petrol Station site, in December 2002. Between this time and May 2003 there was a greater involvement of specific actors who opposed the development. The main objectors were individual residents, the Emerson Park and Ardley Green Residents Association, local councillors and the local media also provided some adverse comments. Interactions were a mixture of formal letters of complaint to the council and local media and informal conversations between residents at the Residents Association monthly meetings, held at a local school. The position of the Residents was one of unhappiness with what they claimed was BP's lack of communication about the development. According to the Chairman of the Residents Association:

> *After we had made a number of objections to it [the fuelling station] and raised a number of concerns, the council officers went back to BP about it. We were never given any feedback, we had to go in and find out for ourselves, we never had a meeting offered and we never saw anybody from BP.*

In June 2003 the Planning Committee held its first meeting to discuss the development. BP, local councillors and the Residents' Association (including an expert witness supporting the Residents' Association safety concerns) each stated their cases. After consideration of the issues put forward, in July 2003 the Planning Committee refused BP permission. In response BP mounted a campaign against the Committee's decision and revised their planning application, of which the residents received notice in August 2003. In return, the council received a further 26 letters of complaint and a petition and the Planning Committee refused permission for a second time in September 2003. It was at this point that BP appealed again and the decision was made in November 2003 to hold a Public Inquiry. In response to this, in December 2003, the council received another petition and 10 additional letters of complaint. In January 2004 the hydrogen bus services were launched with refuelling at a temporary (non-public) facility.

The Public Inquiry was held in May 2004 in the town hall and lasted three days. Representatives from BP, the Planning Committee (including an expert witness from the Planning Committee who provided evidence to oppose the development on the Green Belt issue) and a local resident, 'representing' the residents of Cornwall Close, Surrey Drive and Suffolk Way, gave evidence and were cross-examined. After consideration of the issues in July 2004 the Planning Inspectorate and First Secretary of State approved planning permission on the grounds of 'very special circumstances'[1].

[1] Appendix B outlines the main thrusts of the arguments put forward by BP, the local Planning Committee, local residents and the Planning Inspectorate. The information is taken from the Report to the First Secretary of the State.

...residents remain fearful of the hazards and the proposals clearly represent an intrusion of inappropriate development, in the Metropolitan Green Belt,...Set against this, the scheme also provides a rare and valuable opportunity, as part of an EU co-ordinated project, to advance the prospect of reducing CO^2 emissions through the use of hydrogen fuel cell vehicles. The participation in the project, that the development would allow, has the potential to bring environmental improvements on a worldwide scale and to strengthen the competitiveness of the UK industry in this emerging energy sector. (Grantham, 2004, p15-16).

Over the next 12 months there was much more active engagement between BP and local residents than had gone before. Four public meetings were organised by BP, which were held in local schools and hotels, and an open day on-site was held when the site was near completion. The stated purpose of the meetings and open day, according to BP, was to give local residents chance to directly speak with representatives of BP who were there to answer any questions or deal with areas of concern. As John Mumford, the Director of BP Oil UK states,

A lot of the wild rumors could be addressed. We could put people's minds at rest on a number of issues. Some of them were just technically wrong and you could explain why and that what they were frightened of was technically impossible. Other things were just giving face-to-face reassurances that certain things wouldn't happen that people were concerned that we would do.

The Residents' Association was deeply unhappy with the initial absence of opportunities to meet with BP in the earlier stages. The Chair of the Residents' Association, Trevor Lawrence stated:

They were no public meetings prior to the application. They [BP] admitted and were criticized in the application decision for their lack of public and local consultation.

The hydrogen refuelling site began operation in May 2005. Table 6.1 provides a summary of the forms of participation in the Hornchurch case. A key point, however, was that in the 51 months from the start of the CUTE announcement to site operation, the local residents were given the opportunity to meet informally with BP for the first time in the 42nd month and the opportunity for three more public meetings and one open day over the following eight months.

Table 6.1 *Forms of participation in the Hornchurch Case*

Type	Organisers	Where	Involvement	Purpose
Informal meetings	Residents' Association	Local school hall (monthly)	Local residents (usually 50) Local councillors Invited guests	To discuss local issues of concern and decide action
Petitions	Local Residents	Submitted to local authority (two in total)	300/400 signatures	To demonstrate community opposition to the hydrogen station development
Protest Letters	Local Residents Local Councillors	Submitted to Local Authority (36 letters of complaint)	Local residents Local Councillors Residents Association Other concerned/interested parties	To demonstrate community opposition to the hydrogen station development
Media articles	Local residents Local Councillors	Submitted to local newspaper	Local residents Local Councillors Residents Association Other concerned/interested parties	To demonstrate community opposition to the hydrogen station development
Formal meetings	Havering Borough Council Planning Committee	Council offices (2 meetings)	Planning Committee Members Local Councillors BP representatives Residents Association Expert witness for the RA	To hear evidence from interested parties & discuss the planning application
Public Inquiry	Planning Inspectorate, ODPM	Town hall (lasted 3 days)	Planning Inspectorate Planning Committee Members Expert witness for the Planning Committee BP representatives Local residents	To have quasi-judicial hearing and make a decision on the granting of the planning application
Public meetings	BP	Local schools and hotels (4 in total)	Local residents Interested parties	Informal face-to-face discussion to answer questions and provide reassurance
Open Day	BP	On the development site (one)	Local residents Residents Association Local Councillors	To answer questions and to let local residents see the development

7. STEP FOUR: From visions to actualities

The initial 'vision' of the EU and large multi-national companies was severely delayed and at points threatened. The attempts to translate that 'vision' into action, over time, are captured in the previous section. The three hydrogen fuel cell buses had been launched in London in January 2004 on a busy route alongside conventional buses. The launch went without any major hitches or opposition to the running of the buses. Representatives from the Greater London Authority stated that the buses were used as high profile demonstrations as a means to engage people and a number of general press articles and public lectures had been used to target large audiences. Mike Weston, the Head of Operations at London Buses, claimed that the buses had received nothing but positive feedback from both drivers and passengers.

The problems arose not directly from the fuel-cell bus technology but as a result of the development of the hydrogen refuelling station at an existing BP petrol station site at Hornchurch. BP had not envisaged that the planning permission for the development would have been met with such opposition and made a conscious decision to provide 'low key awareness' of the development on the basis that 'high awareness' was likely to be interpreted that the development was a 'cause for concern'. However this became a 'catch 22' situation. The view from BP was that notifying residents of the development via Council public notices antagonised local residents and they quickly formed opposition groups. Residents felt that BP had not acted in an appropriate manner in the early stages, feelings which were later acknowledged by BP who referred to the situation as a 'reputation crisis' (Mumford Interview).

A key premise of the CUTE initiative was the 'testing-out' of fuel-cell bus and associated technologies in a number of European cities. The view that cities were what we might characterise as 'urban laboratories' led to a view of 'dropping in' the technologies to local contexts with limited 'preparation' of these local contexts. This led the initial objectives of the 'vision' to be questioned on two main grounds:

1. BP acknowledged that they should have undertaken research into the development site (i.e. into local context) before they approached the council for planning permission. This would have involved adapting the original vision of 'dropping-in' the technology and *engaging at a local level* where, according to BP, 'if we had of researched our own files we'd of found out that there had of been some objections [to the site] which had 'been quite low key but had been lost'. There would also have been a process of speaking 'directly to local senior politicians before we'd started doing anything. If we'd have identified just who the few people were who were getting it bent out of shape then we would have contacted them direct'. The key adapting of the original 'vision' acknowledged the very local aspects of engagement where, 'one of the most effective ways of actually doing engagement is doing what the politicians do and going knocking on doors. It's not a comfortable thing to do but it does work a bit better than other methods' (Mumford Interview).

2. The lack of initial consultation and communication on the part of BP provided a space for opposition groups to form. Once negative impressions had been formed it became difficult to change them. The Residents' Association felt that BP as an organisation could not be trusted. The belief was that the site had always been intended to be used for the hydrogen development. The site had a petrol station and wind turbines prior to the application for a hydrogen fuelling station, but it was argued by the Residents' Association that these were put in place to pave the way for the hydrogen refuelling station development. They also believed that following the trial period the site will be used as a permanent refuelling site because of the high cost of infrastructure already in place (A subsequent permit for a planning extension for the site was granted in November 2005!).

Despite opposition, the Hornchurch refuelling station was eventually given planning permission by the Secretary of State Planning Inspectorate and opened in May 2005. BP and the Residents' Association both noted a significant improvement in how their relationship had developed in the later stages of the project and hoped that this would continue in the future. BP felt that since the public meetings and open day a level of trust had been built between them and local residents and this was demonstrated, they claim, by the fact that when the additional planning application to extend the licence of the site for one year was submitted, it virtually went through unopposed.

In summary, the key lessons learned centred around the lack of 'upstream' public engagement. For BP, for example there was acknowledgement that there needed to be much more importance attached 'to public engagement and allowing time for this in the overall management of the project', in particular early on in such processes as 'actually when you start to understand what their ['public'] concerns are you realise that you can very easily give assurances on all those things because they are worried about you taking the project in a direction that you never dreamt of taking it'. The local Residents' Association felt that they should have been consulted in the beginning to explain the 'why' of the questions they wanted to raise.

8. Lessons learned

A number of key lessons can be drawn from this case study and summarised under three main headings:

1. *Emblematic importance of the first attempt to 'implement' a technology*
   - The first instance of the introduction of the technology may be the hardest.
   - 'Why' is an extremely important question for affected parties that should be addressed.

2. *Understanding the local context*
   - Other multiple factors may be a cause of concern, and not necessarily the technology itself.
   - There is no 'one size fits all' communication strategy or engagement model.
   - There is a need to demonstrate benefits to the local community.

3. *The role of 'Project Managers'*
   - Upstream engagement is essential.
   - Project management on behalf of technology developers is crucial. Time must be planned into the process to allow for delays due to regulations etc and the engagement process must be controlled and managed effectively.
   - Negative ideas need to be engaged with before they become embedded.
   - Public meetings and open days are highly effective.
   - Enlisting the support of local influential figures or community groups is useful.
   - Acknowledge that motives and actions will be judged i.e. non-action or no contact can show lack of care or concern for those affected.

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Appendix A Chronology of notable events in the Hornchurch Case

(adapted from a table by Mumford, 2006).

Date	Notable Event
Mar 2001	CUTE announcement to trial hydrogen buses in London and other European cities
May 2001	Planning permit for a hydrogen fuelling station is applied for on the existing site
Oct 2001	London Mayor Hydrogen statement
Nov 2001	Hornchurch petrol station construction draws some complaints from local residents
Feb 2002	The Hornchurch petrol station opens
Feb 2002	Further complaints from local residents and an MP writes complaining
Jul 2002	Completion of contracts between parties in project to build hydrogen station
Sep 2002	First meetings between project team and regulatory authorities
Dec 2002	Residents receive notices about the first planning application
Jan 2003	8 letters of complaint to the council
May 2003	Local press carries first story about hydrogen risk
Jun 2003	First council meeting
Jun 2003	Meeting and letters with MP
Jul 2003	Planning committee refuse permission
Jul 2003	BP mounts legal challenge against Council attempts to refuse planning permission
Aug 2003	Revised planning application and residents receive notices
Aug 2003	26 letters of complaint and petition to council
Sep 2003	Planning committee refuse to grant planning permission
Nov 2003	More adverse media comment
Nov 2003	Decision to go to public enquiry
Dec 2003	10 letters and petition to council
Dec 2003	Residents notified about the public inquiry
Dec 2003	Health and Safety Executive sign off and the hazardous substance permit is awarded
Jan 2004	Hydrogen bus services are launched with refuelling at the temporary facility
Mar 2004	Meeting with MP
May 2004	Public enquiry
May 2004	Muted media coverage of inquiry
Jul 2004	Announcement of Deputy Prime Minister approval of planning permission
Aug 2004	Application for environmental permits
Sep 2004	First public meeting with local residents
Oct 2004	Second public meeting with local residents
Nov 2004	All permits in place and construction starts
Mar 2005	Open-day at the site as it nears completion
May 2005	Start of refuelling operations at the site
May 2005	Third public meeting with local residents with Resident Association representation
Sep 2005	Fourth public meeting with local residents
Sep 2005	Consultation meeting with local residents about the planning extension
Nov 2005	Approval of planning extension

Appendix B Positions of Key Actors at the Public Inquiry

BP

- Project will serve to strengthen the competitiveness of European industry in the strategically important areas of hydrogen processing, fuel technology and the provision of essential infrastructure required to support the hydrogen economy.
- It sits within the context of the urgent need to address the environmental and health effects of increased travel.
- The UK government has provided funding and the Mayor of London has expressed support for the project and, in principle, for the appeals proposals.
- If this opportunity is lost, it will be at least 2-3 years before another arises. Such a set back would be hugely damaging, particularly as the UK is already seen to be lagging behind other nations in the development of a hydrogen economy.
- The Council are strongly supportive of CUTE, in principle, and acknowledge the huge benefits that would flow from the UK being recognised leader in the research, in terms of air quality, the effects of global warning, fuel supply security, noise and the economy.
- London is the only UK city capable of playing a part in the CUTE project.
- The delay to date is embarrassing internationally.
- …the site emerged as the only suitable and available location for the London trial.

Planning Committee

- The appellant must demonstrate that there are very special circumstances sufficient to outweigh the harm that would be caused to the GB by this inappropriate development.
- Here the appellant relies on a package of circumstances which are alleged to be every special when considered together. Each thread must therefore be convincing if the case is to be persuasive.
- …the edge of a GB is often particularly vulnerable and therefore most worthy of protection.
- The development would be wholly exposed to view and passing motorists would see various unusual features…It would be practically impossible to blend this into the GB. Whilst the permission sought is a temporary one, the impact of the development would not be.
- At the inquiry the appellant confirmed that BP operational considerations, rather than CUTE requirements, were the driving force behind the various search criteria used.
- The appellant claims that a site in London area is essential…it would look odd if London was not involved. This is not an adequate justification.

Local Resident

- Residents who live close to the site do not like the loss of GB land that has already occurred.
- There is also the worry that this could provide the location for a bus depot, whereas now no buses come past the site.
- However their main concern relates to the safety issues that might arise if a hydrogen fuelling station is placed next to a PFS. The arrangement has never been trialled before.
- …there are still doubts about the safety aspects.
- As things stand residents are fearful that something will go wrong and do not understand why the trial has to be here. It is hard to believe that BP do not have another possible site available to them.

Written representations, included petitions indicating opposition

- The site is on a dangerous bend in the A127…Numerous accidents have occurred on the approach to the site and the situation would worsen with the increased traffic, that the development would bring, especially if the number of buses were to increase.
- The noise and light from the proposed development would be harmful to the living conditions of local residents.
- The local area is of outstanding natural beauty an there are longstanding plans to plant a forest here.
- The company is simply motivated by financial gain and drip feeds planning applications to the Council, in order to create confusion.
- BP do not have a good record in relation to safety.

Planning Inspectorate

- Hazardous Substances Consent (HSC) has now been granted for the presence of hydrogen on the site…none of the nearby properties would be at undue risk.
- …given the small volume of traffic that would visit the hydrogen refuelling facility, I see no sound reason to oppose the proposals on highways grounds.
- The small amount of traffic is unlikely to be disturbing to people living on the opposite side.
- …I find no reason to believe that light from the appeal site would be unduly harmful to residents' living conditions.
- The loss of openness…would be limited. BP want people to be aware of the refuelling facility's presence. However this does not necessitate as unduly obtrusive appearance.
- Lighting of the facility building, at night, would be low intensity for the vast majority of the time.

Very special circumstances

- The project offers worldwide environmental benefits.
- The London arm of the project would provide unique operational knowledge of potentially sustainable refuelling infrastructure that may prove to be particularly suitable for the UK.
- Clearly the project is of national and international importance.